SE369

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S.E. (Electronics & TC/Electronics & Comm Engg) (Semester- III)
(Revised Course 2007-08) EXAMINATION Nov/Dec 2019
Introduction to Java (AITD)

[Duration : Three Hours] **[Total Marks : 100]**

Instructions:

1. Attempt 5 questions.
2. Attempt minimum of 1 question per module.
3. Make suitable assumptions.

MODULE I

1. a) Explain any 6 features of java programming language. **6**

b) Explain the structure of a typical java program **7**

c) Write a program to implement a calculator using a switch statement. **7**

2. a) Write program to point Fibonacci series and trace the output **10**

b) Write a java program which implements class **'shape'**. Also create two classes **'cube'** , and **'cylinder'** which derived from class volume. Compute the volume for classes **'cube'** and **'cylinder'.** **10**

MODULE II

3. a) Write a java program to sort 'n' numbers in an array in descending order. Also compute and display the sum of the 'n' numbers. **8**

b) Why are interface used? Explain with a suitable example. **6**

c) Write a program to convert an integer 35 to a string using wrapper classes. Also give the syntax for splitting a string into substrings. **6**

4. a) Explain the importance of static import in Java. **6**

b) Explain the concept of multiple inheritances using interfaces in Java with the aid of a suitable example. **8**

c) Explain the importance of packages in Java. **6**

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MODULE III

5. a) Distinguish between multiprocessing and multithreading. **8**

   b) Discuss the various thread options and the necessity of setting priority. **7**

   c) What are Applets? Describe the lifecycle of an applet. **5**

6. a) Explain the life cycle of a thread using a neat diagram. **8**

   b) Write a program to handle divide by zero exception. **8**

   c) Write a applet program to display "Hello world". **4**

MODULE IV

7. a) Write an applet program for drawing Bar Chart for a given table. **10**

Year	2013	2014	2015	2016	2017
Sales Percentage	78	79.1	63.1	77	83

   b) Write applets to draw the following shapes. **10**
   i) Cone ii) Cylinder iii) Cube iv) Square inside a circle

8. a) Differentiate between: **10**
   (i) InputStream and Reader class
   (ii) OutputStream and Writer class

   b) Write a program to copy the contents of one file to another. **6**

   c) Write an Applet program drawing a human face. Also draw the output of the program **4**

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